



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/748,950	12/30/2003	Roger M. Ikeda	TI-37410	7897

23494 7590 02/08/2008  
TEXAS INSTRUMENTS INCORPORATED  
P O BOX 655474, M/S 3999  
DALLAS, TX 75265

EXAMINER
----------

KOZIOL, STEPHEN R

ART UNIT	PAPER NUMBER
----------	--------------

2624

NOTIFICATION DATE	DELIVERY MODE
-------------------	---------------

02/08/2008

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

uspto@ti.com  
uspto@dlemail.itg.ti.com

**Advisory Action  
Before the Filing of an Appeal Brief**

Application No.

10/748,950

Applicant(s)

IKEDA, ROGER M.

Examiner

Stephen R. Koziol

Art Unit

2624

**--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

THE REPLY FILED 01/03/2008 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☐ The period for reply expires \_\_\_\_\_ months from the mailing date of the final rejection.  
b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**NOTICE OF APPEAL**

2. ☐ The Notice of Appeal was filed on \_\_\_\_\_. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

**AMENDMENTS**

3. ☒ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because  
(a) ☒ They raise new issues that would require further consideration and/or search (see NOTE below);  
(b) ☐ They raise the issue of new matter (see NOTE below);  
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or  
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: See Continuation Sheet. (See 37 CFR 1.116 and 41.33(a)).


4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).  
5. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.  
6. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).  
7. ☒ For purposes of appeal, the proposed amendment(s): a) ☒ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.  
The status of the claim(s) is (or will be) as follows:  
Claim(s) allowed: \_\_\_\_\_.  
Claim(s) objected to: \_\_\_\_\_.  
Claim(s) rejected: 1-20.  
Claim(s) withdrawn from consideration: \_\_\_\_\_.

**AFFIDAVIT OR OTHER EVIDENCE**

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).  
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).  
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

**REQUEST FOR RECONSIDERATION/OTHER**

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:  
Applicant's arguments fail to overcome all outstanding rejections.  
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08) Paper No(s). \_\_\_\_\_.  
13. ☐ Other: \_\_\_\_\_.

  
BRIAN WERNER  
SUPERVISORY PATENT EXAMINER

Continuation of 3. NOTE: Amendments to independent claims 9 and 17 filed 01/03/2008 introduce, inter alia, the limitation "adjusting a rate at which to move the aperture." The amendment significantly alters the previous language of "determining a step size to move the aperture" such that a new search would be required. The filing of a request for continued examination under 37 CFR 1.114 including the aforementioned amendments, will result in said amendments being entered on record .

ADVISORY ACTION

1. Applicant's remarks filed 01/03/2008 have been fully considered, but do not place the application in condition for allowance. Applicant's amendments to independent claims 9 and 17 filed 01/03/2008 have not been entered on record at this time because the amendments introduce subject matter that would require additional search.

***Claim Rejections - 35 USC § 112 First Paragraph***

On "Remarks" pp. 7-8 (01/03/2008) in response to the final Office action (11/16/2007), Applicant presents arguments with respect to independent Claims 1 asserting that Applicant's specification supports "a histogram module operable to collect data associated with a first frame and a second frame of a signal received by the control module" as recited in Claim 1. In support of this position, Applicant points to page 16, lines 6-11 of the specification which disclose an embodiment of the present invention having "**a memory capable of storing at least...a current background bin number, and a prior background bin number**" associated with respective frames (Remarks, page 7) (emphasis original). Applicant also points to page 9, lines 4-6 of the specification, which states that "[i]n some cases, aperture 26 can vary the brightness and contrast of the projected image on a frame-by-frame **or a multiple frame basis**" (Remarks, page 7) (emphasis original). The above reasons provide the basis for Applicant's assertion that the specification supports the limitation of "a histogram module operable to collect data associated with a first frame and a second frame of a signal received by the control module, the histogram module comprising a plurality of bins capable of counting a first and second plurality of pixels associated respectively with the first and second frames, wherein each of the first and second

plurality of pixels each comprises a respective maximum intensity component at a particular color level,” as recited in Claim 1.

Examiner respectfully disagrees with the basis provided for supporting Applicant’s assertion that the amendments to Claim 1 introduced 10/08/2007 are supported by the specification.

With regard to the cited passage of the specification on page 16 lines 6-11, Applicant notes that “a memory” stores at least a current and prior background bin number. If this passage is to lend support for the limitation of collecting data associated with “a first frame and a second frame,” as Applicant contests, then the “current background bin number” must refer to data collected from the “first frame” and the “prior background bin number” must refer to data collected from the “second frame,” or *vice versa*. However, it is not clear from the specification that this is the case. For example, page 15, lines 26-31 of the specification exemplary describe the operation of said current and prior background bins within an image frame wherein “bin ‘0’ of a histogram operates to count the pixels having their maximum intensity component at a level between 0 and 7, while bin ‘31’ operates to count the pixels having their maximum intensity components at a level between 248 and 255.” In this example, “bin ‘0’” may be analogous to the “current background bin number” of page 16, and “bin ‘31’” may be analogous to the “prior background bin number,” also of page 16. In this case, bin ‘0’/current background bin number and bin ‘31’/prior background bin number will come from the same first image frame (i.e. a second image frame is not required to generate both current and prior background bin numbers in view of cited example). Thus, while Applicant’s specification may provide support for collecting current and prior background bin numbers (i.e. “bin ‘0’” and “bin ‘31’”) from a single

image frame, Examiner respectfully maintains that page 16, lines 6-11 of the specification does not lend support for collecting data from a "first frame and a second frame" as required by claim 1, since collection from only one frame is supported.

With regard to the cited passage of the specification on page 9 lines 4-6, Applicant notes that the aperture "can vary the contrast and brightness of the projected image on a frame-by-frame **or a multiple frame basis**" (Remarks, page 7) (emphasis original). Applicant offers this passage as further support that the limitation of "a histogram module operable to collect data associated with a first frame **and a second frame** of a signal received by the control module" is supported by the specification (Remarks, page 7) (emphasis original). Examiner notes, however, that the aperture receives light from the modulator (figure 1, item 22). Varying the amount of light from the light modulator (22) determines how the aperture (26) will respond (e.g. what step size for the aperture to assume) (page 8, line 20 thru page 9 line 17). While the aperture may vary the brightness and contrast of a projected image on a frame-by-frame or multiple frame basis (page 9 lines 4-6), this element of the specification is not sufficient to support the limitation of the histogram module collecting data associated with a first frame and a second frame, as required by claim 1. Page 9, lines 4-6 are silent on the histogram module collecting data from first and second frames, and only support varying the aperture size on a frame-by-frame or multiple frame basis.

With regard to the specification's support for the limitation of "a processor capable of determining a first and... **a second position of the adjustable aperture based at least in part on the first position,**" Applicant points to, *inter alia*, page 19 lines 16-19 which states "[i]n various embodiments processor 206 can implement small 'step sizes' that allow the aperture to

reach its target position over several frames." In view of this passage, Examiner agrees with Applicant that the limitation of "a processor capable of determining a first and...a second position of the adjustable aperture based at least in part on the first position" as required by Claim 1, is fully supported by the specification. However, the 112 rejection is maintained for the reasons indicated in the two preceding paragraphs.

*Claim Rejections - 35 USC § 102*

Regarding claim 1, Applicant states "Claim 1 is allowable at least because Kurematsu fails to disclose, teach, or suggest, 'a processor capable of determining a first position of an adjustable aperture based at least in part on at least a portion of the data collected by the histogram module, and a second position of the adjustable aperture based at least in part on the first position, the processor further capable of determining a gain to apply to the second frame of the signal based at least in part on the second adjustable aperture position.' The Office Action relies on paragraphs 0074, 0080, and 0082, 0084, and 0098 of Kurematsu in rejecting Claim 1, but this reliance is misplaced.... The paragraphs cited by the Office Action, however, merely disclose controlling the amount of projection light in conformity with the maximum luminance level of a single frame, which does not constitute 'a processor capable of determining..., a second position of the adjustable aperture based at least in part on the first position'" (Remarks page. 8 and 9).

Examiner respectfully disagrees with Applicant's interpretation of the teachings of Kurematsu with respect to at least claim 1, particularly the notion that Kurematsu merely discloses "controlling the amount of projection light in conformity with the maximum luminance level of a single frame" (Remarks, page 9).

Examiner maintains that Kurematsu teaches each and every limitation of independent claim 1, as indicated in the final Office action (11/16/2007). With respect to the limitation of “a processor capable of determining..., a second position of the adjustable aperture based at least in part on the first position” Examiner points to at least paragraphs 0072-0073 of Kurematsu which state, *inter alia*, “[t]he luminance level calculation means 30a may preferably calculate the maximum value of the luminance signal of each pixel in each field or each frame of the input image signal as maximum luminance. In this case, the maximum value can be calculated by comparing the input image signal in a field or a frame in succession” (Kurematsu, par. 0073) (emphasis added). Here we see an embodiment of Kurematsu that does not consider each input image frame in a vacuum, as suggested by Applicant (Remarks page 9), when determining aperture position, but rather incorporates information from frames in succession when calculating the values that determine the signal to control the aperture position. When determining a new aperture position from a frame in succession (“a second position...based on the first position” to use the language of claim 1) Kurematsu does not discard or forget the position of the previous (first) frame in succession, but rather this “first” frame naturally serves as the starting point in determining the second aperture position. For at least the reasons above, combined with those in the final Office action (11/16/2007), it is respectfully believed that Kurematsu teaches each and every limitation of Claim 1.

Comments with respect to amended Claims 9 and 17 have been considered, but will not be addressed at this point because the amendments to Claims 9 and 17 have not been entered for introducing subject matter that would require additional search. However, said amendments would be entered on record if incorporated into a timely filed Request for Continued



Examination under *37 CFR 1.114*, which Applicant is encouraged to consider. Furthermore, Examiner would be hard-pressed to justify using any of the currently cited art on record in rejecting thusly amended Claims 9 and 17 (or other independent claims incorporating these limitations) (i.e. adjusting the "rate" at which to move the aperture may be sufficient to overcome at least Kurematsu).

All other claims stand rejected for the reasons indicated in the final Office action (11/16/2007).

### ***Conclusion***

2. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the Final Rejection, whichever is later. In no event, however, will the statutory period for replay expire later than SIX MONTHS from the mailing date of the final rejection.

*Contact*

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steve Koziol whose telephone number is (571) 270-1844. The examiner can normally be reached on M - alt. F 8:00-5:30 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Samir Ahmed can be reached at (571) 272-7413 . Customer Service can be reached at (571) 272-2600. The fax number for the organization where this application or proceeding is assigned is (571) 273-7332.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

**/Stephen R Koziol/**  
Desk: (571) 270-1844  
Facsimile: (571) 270-2844  
[Stephen.Koziol@uspto.gov](mailto:Stephen.Koziol@uspto.gov)

  
**BRIAN WERNER**  
SUPERVISORY PATENT EXAMINER